

Filter Strip

Conservation Practice Job Sheet - 393



- On fields, along streams, ponds, lakes and drainageways.
- As part of a riparian forest buffer system in Zone 3.
- Where there is sheet or uniform shallow flow (avoid concentrated flow).
- As part of a loafing lot management system.
- When they can be installed on the approximate contour.
- Where conservation practices reduce soil losses to acceptable level.
- In conjunction with conservation practices on the contributing area to reduce sources of contaminants.
- On slopes less than ten percent.

What is a Filter Strip?

A filter strip is an area of grass or other permanent vegetation used to reduce sediment, organics, nutrients, pesticides, and other contaminants from runoff and to maintain or improve water quality.

Benefits of Filter Strips

Filter strips intercept undesirable contaminants from runoff before they enter a water body. They provide a buffer between contaminant sources, such as crop fields, and streams or other water bodies. Filter strips slow the velocity of water, allowing the settling out of suspended soil particles, infiltration of runoff and soluble pollutants, adsorption of pollutants on soil and plant surfaces, and uptake of soluble pollutants by plants.

Secondary benefits:

- Forage - on-farm use or cash crop (hay)
- Wildlife
- Turnrows and headlands
- Access
- Aesthetics
- Landscape and watershed functions

Where used

- At the lower edge of crop field, loafing areas, and grazing land, in conjunction with other conservation practices.

Conservation Management System

Filter strips are normally established as part of a conservation management system to address the soil, water, air, plant, and animal needs and the owner's objectives. Filter strips can also provide hay production, wildlife, game and waterfowl habitat, and improve farm aesthetics. They are most effective when used in combination with other agronomic or structural practices to provide resource conservation benefits.

Wildlife

Filter strips can enhance wildlife management objectives depending on the vegetative species used and management practiced. Use of native vegetative species that provide a variety of food and cover is recommended and an important consideration. Delay mowing of filter area until after the nesting season. (4/1 - 8/15)

Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standard Filter Strip 393.

Operation and Maintenance

- Mow and harvest filter strip grasses to encourage dense vegetative growth. Care should be taken to avoid mowing during nesting periods: 4/1 - 8/15.
- Control undesirable weed species.
- Inspect and repair after storm events to fill in gullies, remove sediment accumulation, reseed disturbed area, and take other measures to prevent concentrated flow in the filter strip.
- Lime and fertilize to soil test recommendations.
- It is recommended that vehicular traffic be excluded at all times to the extent that is practical.
- Restoration is required once the filter strip has accumulated so much sediment that it is no longer effective.
- Livestock will be excluded from the filter strip.

Filter Strips - Specifications Sheet

Landowner _____ Field # _____

Purpose (check all that apply)	
<input type="checkbox"/> Collect sediment	<input type="checkbox"/> Pollutant filtration
<input type="checkbox"/> Increase infiltration	<input type="checkbox"/> Other (specify)

Filter strip layout	Filter Strip 1	Filter Strip 2	Filter Strip 3
Strip width (ft.)			
Strip length (ft.)			
Area of filter strip (acres)			
Slope %			
Species #1			
Species #2			
Species #3			
Seeding rate (PLS) (lbs/acre)			
Lime (tons/acre)			
N (lbs/acre)			
P ₂ O ₅ (lbs/acre)			
K ₂ O(lbs/acre)			

Site Preparation
Prepare firm seedbed. Apply lime and fertilizer according to recommendations.
Planting Methods
Drill grass and legume seed _____ inches deep uniformly over area. Establish stand of vegetation according to recommended seeding rate. If necessary, mulch newly seeded area with _____ tons per acre of mulch material. May seed small grain as a companion crop at the rate of _____ pounds per acre, but clip or harvest before it heads out.
Maintenance
Maintain original width and depth of the grass area. Regularly remove debris and sediment from filter area. Harvest, mow, reseed, and fertilize to maintain good vegetation. Inspect periodically after every major storm and repair any eroding areas.

Virginia Establishment Specifications

General Specification

1. All trees, stumps, brush, rocks, and similar materials that can interfere with the installation and function of the filter strips shall be removed.
2. The filter strip shall be shaped and graded to the dimension shown on an engineering plan to achieve sheet flow. If necessary, topsoil shall be stockpiled and spread to the required grade and thickness to establish vegetation.
3. All vegetative establishment should be done according to the rates shown above.

Filter strips for surface water treatment from confined livestock operations.

1. Filter strips are not to be used for wastewater treatment.

Filter Strips - Job Sketch

A plan view or profile view of the filter strips field layout may be shown below. Relevant information may be included such as complementary practices, adjacent field or tract conditions, the positioning of structures, drainage patterns and systems, row arrangement, crop types, and/or additional specifications.

Additional Specifications and Notes:

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